



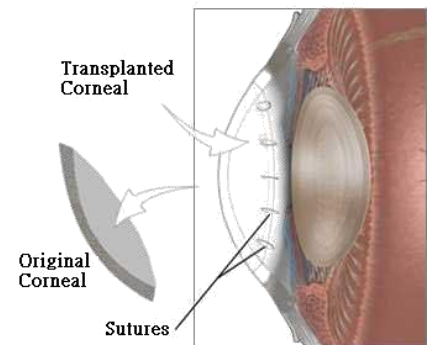
Operation Information

Corneal Transplantation

Introduction

The cornea is the clear outer lens at the front of the eyeball. The colored iris and the pupil can be seen through the cornea. It helps to focus light rays onto the retina and transmit the view to the brain.

Corneal Transplantation is a major eye operation where the opacified cornea is replaced with a healthy one from a donor to restore vision. The operation usually takes 1-2 hours and may be performed with other operations at the same time, e.g. cataract and glaucoma operations.



Source
<http://www.byeglasses.com/intacs/tuijian/200809/474.html>

Indications

1. Keratoconus, the cornea is cone-shaped rather than normal dome-shaped
2. Fuchs' dystrophy, cells in the corneal layer die off and the cornea gets swollen and puffy
3. Any infections or injuries that scar the cornea
4. Corneal damage complicated by previous eye surgery

Outcomes

The purpose of this operation is to replace the diseased cornea with tissue from a donor, in order to improve vision and to treat or relieve the pain of a diseased eye.

Procedures

1. The operation is performed under general or local anaesthesia.
2. A device is placed to keep the affected eye open.
3. A special instrument is used to cut out the diseased part of the cornea.
4. The new healthy donor cornea button is placed in the opening and secured with stitches.
5. Eye pad and eye shield are applied to protect the eye.

Possible Risks and Complications

Corneal transplant is considered a fairly safe operation, but complications may still happen ranging from days to even years after the operation.

1. Eye discomfort, gritty sensation, tearing
2. Macular or graft swelling causes blurred vision, most are transient
3. Photophobia
4. Glare
5. Astigmatism
6. Double vision
7. Loss of vision or blindness
8. Bleeding in eye
9. Chronic inflammation
10. Wound infection

11. Hasten the onset or deterioration of cataract
12. Glaucoma
13. Retinal detachment
14. Recurrence of host disease
15. Epithelial ingrowth
16. Gradual endothelial dysfunction
17. Graft failure (the implanted tissue fails its function and loss of corneal clarity)
18. Graft rejection
19. Complications of prolonged steroid treatment to prevent rejection, including cataract development or deterioration, glaucoma, vulnerability to infection, poor wound healing and exacerbation of pre-existing diseases like herpes
20. Very rarely, transmission of donor disease (though all donors are screened for Hepatitis B, Hepatitis C, HIV, and Syphilis before transplantation)

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all operations are carried out with utmost professionalism and care, this does not rule out the possibility of complications arising. In the event of peripheral organ damage or post-operative haemorrhage or leakage, further operations may be required.

Pre-operative Preparations

1. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
2. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia.
3. Routine pre-operation investigations such as blood tests, ECG and X-ray may be performed.
4. Eye drops may be started a few days before the surgery. Please use the eye drops as instructed.
5. Do not put creams, lotions, or makeup on the face or around the eyes on the day of surgery.
6. You should avoid driving to attend the surgery. As the operated eye is covered after the surgery, your visual-spatial perception would be affected. Thus, you are advised to be accompanied by a family member.
7. If the surgery is performed under general anaesthesia, no food or drink six hours before the operation.
8. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
9. Please empty your bladder before the operation.
10. Eye drops that make the pupil dilated will be applied to your eye. You cannot see clearly afterward. Please stay in your seat/bed and ask for assistance whenever necessary.

Post-operative Instructions

General

1. After general anaesthesia, you may:
 - experience discomfort in the throat after tracheal intubation.
 - experience side effects of anaesthesia including feel tired, drowsy, nausea or vomiting. Inform the nurse if symptoms persist or worsen.
2. Please inform the nurse of wound pain. Proper pain relief treatment by injection or oral medication may be prescribed by the doctor.
3. You may be discharged on the same day after the surgery or the next day.

Eye Care

1. Eye pad or eye shield should remain in position as instructed by the doctor.
2. Use eye drops or eye ointment as prescribed to prevent infection and rejection.
 - Clean the eye before application of eye medication.
 - i. Wash your hands thoroughly with soapy water.

- ii. Dip a clean facial puff in cool boiled water.
 - iii. Close your eyes.
 - iv. Use the puff to swab the eye from the inner corner to the outer corner.
 - v. Discard the puff. Each puff can only be used once.
 - vi. Repeat ii to v with a new puff until the eye is clean.
- Instill the eye drop / ointment
 - i. Tilt your head back slightly and look up.
 - ii. Pull your lower eyelid downward and outward. This forms a pocket to catch the drop.
 - iii. Hold the medication container tip directly over the eyelid pocket. Do not touch the tip with your hand or your eye.
 - iv. Gently squeeze the medication container, and let the medication fall into the eyelid pocket.
 - After the instillation of the eye drops / ointment
 - i. Close your eyes and do not blink.
 - ii. If an eye drop is just instilled, gently press on the skin near the inner eye corner where the eyelid meets the nose for a minute. Here is the passage of the tear duct. This gives the drop time to be absorbed by the eye, instead of draining into your throat.
 - If more than one type of eye drop at the same time is required, wait three minutes between different kinds of medication.
 - If both eye drop and ointment at the same time is required, use the eye drop first.
3. Stitches may remain in place unless they are loosened, or broken, causing excessive astigmatism, infection or irritation.
 4. Do not press or rub your eye.
 5. Do not let water or any other foreign object get in your eye for at least one month.
 6. You may wear sunglasses instead of an eye shield during the day, but still need to use an eye shield at night for protection.
 7. Avoid smoky or dusty places as this irritates your eyes.
 8. Avoid wearing a pullover to prevent the clothes from contact with the operated eye resulting in pain and infection.

Diet and Activities

1. A normal diet can be resumed after recovery from anaesthesia.
2. Take rest with lying on your back as much as possible for the first few days after the operation.
3. Take liberal amounts of vegetables, fruits and water to prevent constipation and straining. Walking is also helpful.
4. Do not drive, operate machinery, swim, or participate in contact sports and vigorous activities until further advised by your doctor.
5. Avoid bending down and heavy lifting for 2 weeks.
6. You may not be accustomed to the eye pad or eye shield. Night light is advised to prevent falls and injury.

Advice on Discharge

1. Please comply with the medication regime as prescribed by your doctor. Follow the instructions on taking eye drops or eye ointment.
2. Time of recovery and level of visual improvement varies, depending on the causes and extent of the disease, the type of corneal transplant performed and the patient's factors.
3. After the operation, your vision usually takes a few months to stabilize.
4. Refractive error particularly astigmatism is common. Further action like a prescription of glasses or removal of stitches may be required for further vision adjustment.
5. Immediately consult your doctor or return to hospital for professional attention in the event of severe eye pain or headache, sudden blurred vision, increased eye redness, flashes of light or floaters in the eye, light sensitivity, shivering, high fever over 38°C or 100.4°F, or any other unusual symptoms.

6. Any follow-up consultations should be attended as scheduled.
7. Since the operation involves transplantation from another person's tissue, immune reactions called rejection can occur at all times after the procedure. Regular follow up and long-term eye medications may be required.

Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

Compiled by Union Hospital Operating Theatre (OT) Governance Committee

The above information is for reference only, please enquire your physician for details
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification

